

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (amended) A negative-working image forming process which comprises the steps of:
 - (1) flood exposing with actinic radiation a photosensitive assembly that comprises:
 - (a) a hydrophilic support which can be used as a lithographic base and having thereon;
 - (b) a first layer comprising:
 - (i) at least one polymer that is soluble or dispersible in an aqueous alkaline solution, wherein the polymer in the first layer is a copolymer having at least one functional group selected from the group consisting of carboxylic acid, N-substituted cyclic imide, and amide;
 - (c) a second layer on top of the first layer, the second layer comprising at least one o-quinonediazide compound; whereby the flood exposure ~~causes~~ converts the at least one o-quinonediazide compound ~~to be converted~~ to the corresponding indenecarboxylic acid compound; and
 - (d) at least one photothermal conversion material in either the first layer, ~~or~~ the second layer, or both layers, wherein the at least one photothermal conversion material is at least one infrared absorbing compound;
 - (2) imagewise exposing the flood exposed photosensitive assembly with infrared radiation ~~to thereby convert and converting~~ the indenecarboxylic acid compound in the second layer in the imagewise exposed areas to the corresponding indene compound; and
 - (3) developing the imagewise exposed photosensitive assembly with an alkaline developing solution ~~to dissolve and dissolving~~ out the imagewise unexposed areas of the second layer and the areas of the first layer underlying the imagewise unexposed areas of the second layer ~~and thereby produce a negative working image.~~
2. (original) The process of claim 1 wherein the support is a polyester film.

3. (original) The process of claim 1 wherein the support is a sheet of anodized aluminum.

4. (cancelled)

5. (original) The process of claim 1 wherein the o-quinonediazide compound comprises either (i) a mixture of a phenolic resin and an o-naphthoquinone diazide compound; (ii) a reaction product of a resin and an o-naphthoquinone diazide compound; or (iii) a mixture of (i) and (ii).

6. (cancelled)

7. (amended) The process of claim-~~6~~ 1 wherein the at least one infrared absorbing compound is in the second layer.

8. (cancelled)

9. (original) The process of claim 1 wherein the thickness of the first layer is from about 0.5 to about 2.5 microns.

10. (original) The process of claim 1 wherein the thickness of the second layer is from about 0.5 to about 2.5 microns.

11. (amended) A negative-working image forming process which comprises the steps of:

(1) flood exposing with-~~UV~~ ultraviolet radiation a photosensitive assembly that comprises:

(a) an aluminum plate hydrophilic support which can be used as a lithographic base and having thereon;

(b) a first layer comprising:

(i) at least one copolymer that is soluble or dispersible in an aqueous alkaline solution and has at least one functional group selected from the group consisting of carboxylic acid, N-substituted cyclic imide, amide, and mixtures thereof;

(c) a second layer on top of the first layer, the second layer comprising at least one o-quinonediazide compound that comprises either (i) a mixture of a phenolic resin and an o-naphthoquinone diazide compound; (ii) a reaction product of a resin and an o-naphthoquinone diazide compound; or (iii) a mixture of (i) and (ii); whereby the flood-~~UV ultraviolet~~ exposure causes converts the at least one o-quinonediazide compound ~~to be converted~~ to the corresponding indenecarboxylic acid compound; said second layer additionally ~~containing~~ comprising an infrared absorbing compound;

(2) imagewise exposing the flood-~~UV ultraviolet~~ exposed photosensitive assembly with infrared radiation ~~to thereby convert~~ and converting the indenecarboxylic acid compound in the second layer in the imagewise exposed areas to the corresponding indene compound; and

(3) developing the imagewise exposed photosensitive assembly with an alkaline developing solution ~~to dissolve and dissolving~~ out the imagewise unexposed areas of the second layer and the areas of the first layer underlying the imagewise unexposed areas of the second layer ~~and thereby producing a negative working image.~~

12. (original) The process of claim 11 wherein copolymer in the first layer comprises at least 90% by weight of the first layer.

13. (amended) The process of claim 11 wherein the ~~amount of~~ infrared absorbing compound comprises from about 5 to about 25 weight percent of ~~in~~ the second layer ~~is sufficient to provide an optical density of at least 0.5 in that layer.~~

14. (original) The process of claim 11 wherein the developing solution has a pH from about 8 to about 13.5.

15. (amended) A negative-working image-forming process which comprises the steps of:

(1) flood exposing with ~~UV ultraviolet~~ radiation a photosensitive assembly that comprises:

(a) an anodized aluminum plate hydrophilic support which can be used as a lithographic base and having thereon;

(b) a first layer comprising:

(i) a terpolymer of methacrylamide, methacrylic acid and N-phenylmaleimide that is soluble or dispersible in an aqueous alkaline solution;

(c) a second layer on top of the first layer, the second layer comprising at least one o-quinonediazide compound that comprises either (i) a mixture of a phenolic resin and an o-naphthoquinone diazide compound; (ii) a reaction product of a resin and an o-naphthoquinone diazide compound; or (iii) a mixture of (i) and (ii); whereby the flood-~~UV~~ ultraviolet exposure ~~causes~~ converts the at least one o-quinonediazide compound ~~to be converted~~ to the corresponding indenecarboxylic acid compound; said second layer additionally ~~containing~~ comprising an infrared absorbing compound;

(2) imagewise exposing the flood-~~UV~~ ultraviolet exposed photosensitive assembly with infrared laser radiation ~~to thereby convert~~ and converting the indenecarboxylic acid compound in the second layer in the imagewise exposed areas to the corresponding indene compound; and

(3) developing the imagewise exposed photosensitive assembly with an alkaline developing solution ~~to dissolve and dissolving~~ out the imagewise unexposed areas of the second layer and the areas of the first layer underlying the imagewise unexposed areas of the second layer ~~and thereby producing a negative working image.~~

16. (amended) The process of claim 15 wherein the first layer additionally ~~contains~~ comprises a colorant and a coating improver.

17. (original) The process of claim 15 wherein the terpolymer in the first layer comprises mole fractions of 35:20:45 of the methacrylamide, methacrylic acid and N-phenylmaleimide.

18. (cancelled)

19. (new) The process claim 1 wherein the polymer in the first layer is a copolymer of N-phenyl maleimide, methacrylamide and methacrylic acid.

20. (new) The process claim 19 wherein the polymer in the first layer comprises about

25 to 75 mol% of N-phenylmaleimide; about 10 to about 50 mol% of methacrylamide; and about 5 to about 30 mol% of methacrylic acid.

21. (new) The process of claim 11 wherein the at least one copolymer in the first layer comprises about 35 to about 60 mol% of N-phenylmaleimide; about 15 to about 40 mol% of methacrylamide; and about 10 to about 30 mol% of methacrylic acid.

22. (new) The process of claim 21 wherein the polymer in the first layer comprises about 35 to about 60 mol% of N-phenylmaleimide; about 15 to about 40 mol% of methacrylamide; and about 10 to about 30 mol% of methacrylic acid.

23. (new) The process of claim 15 wherein the terpolymer in the first layer comprises about 35 to about 60 mol% of N-phenylmaleimide; about 15 to about 40 mol% of methacrylamide; and about 10 to about 30 mol% of methacrylic acid.